

# NYC Perinatal Hepatitis B Program

## Approaches to Case Finding and Case Management

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# Perinatal Hepatitis B in New York City

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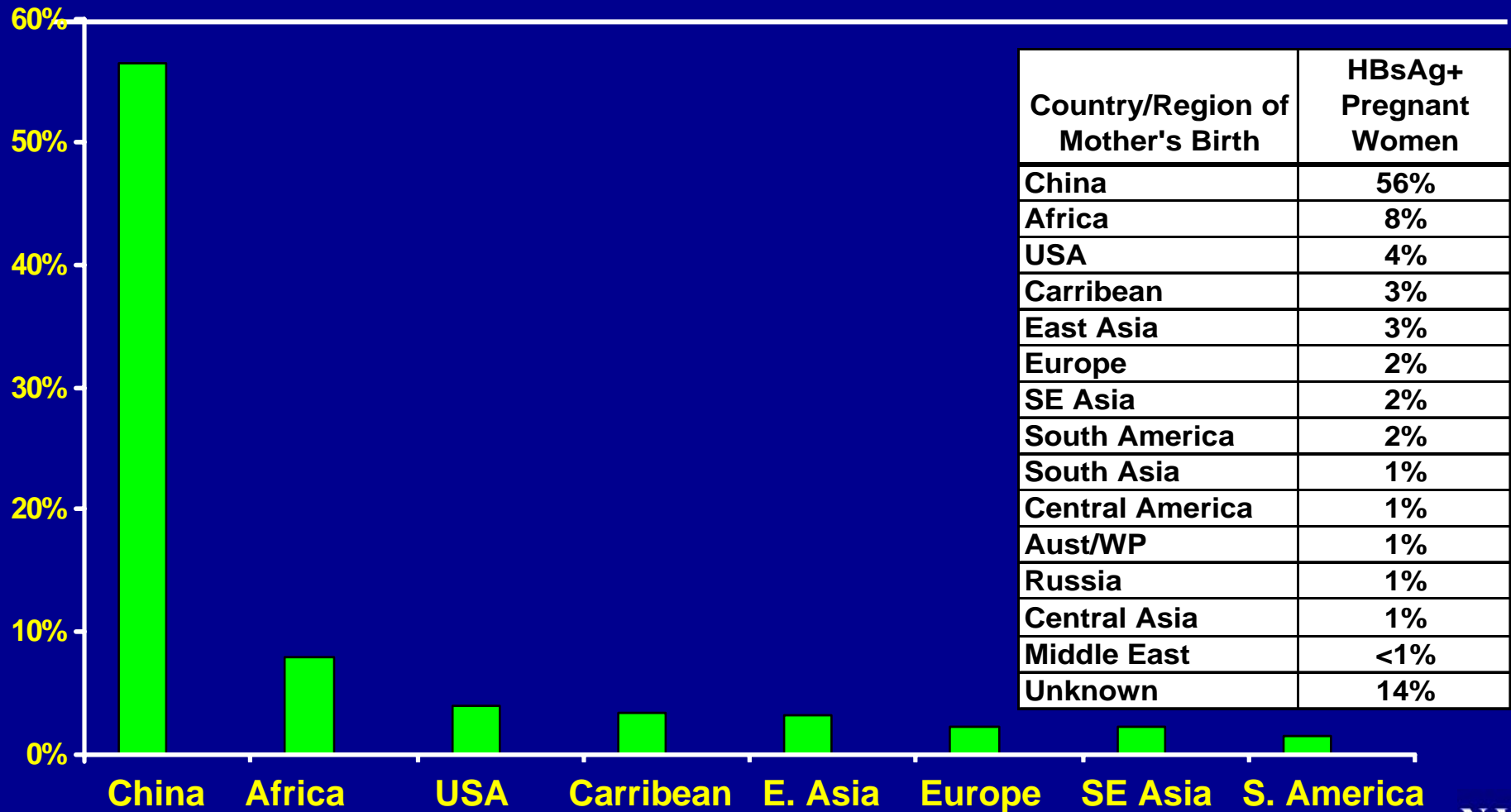
- New York City, > 8 million\* residents
- City of immigrants
  - 36%¶ of NYC residents and 55%‡ of women giving birth in NYC are foreign-born
- Large city-based perinatal hepatitis B program
  - 1800 - 2000 HBsAg+ pregnant women/yr
  - At least 82% of cases are foreign born

\*US Census Statistics, 2000

¶The Newest New Yorkers, NYCDHP, 2004;

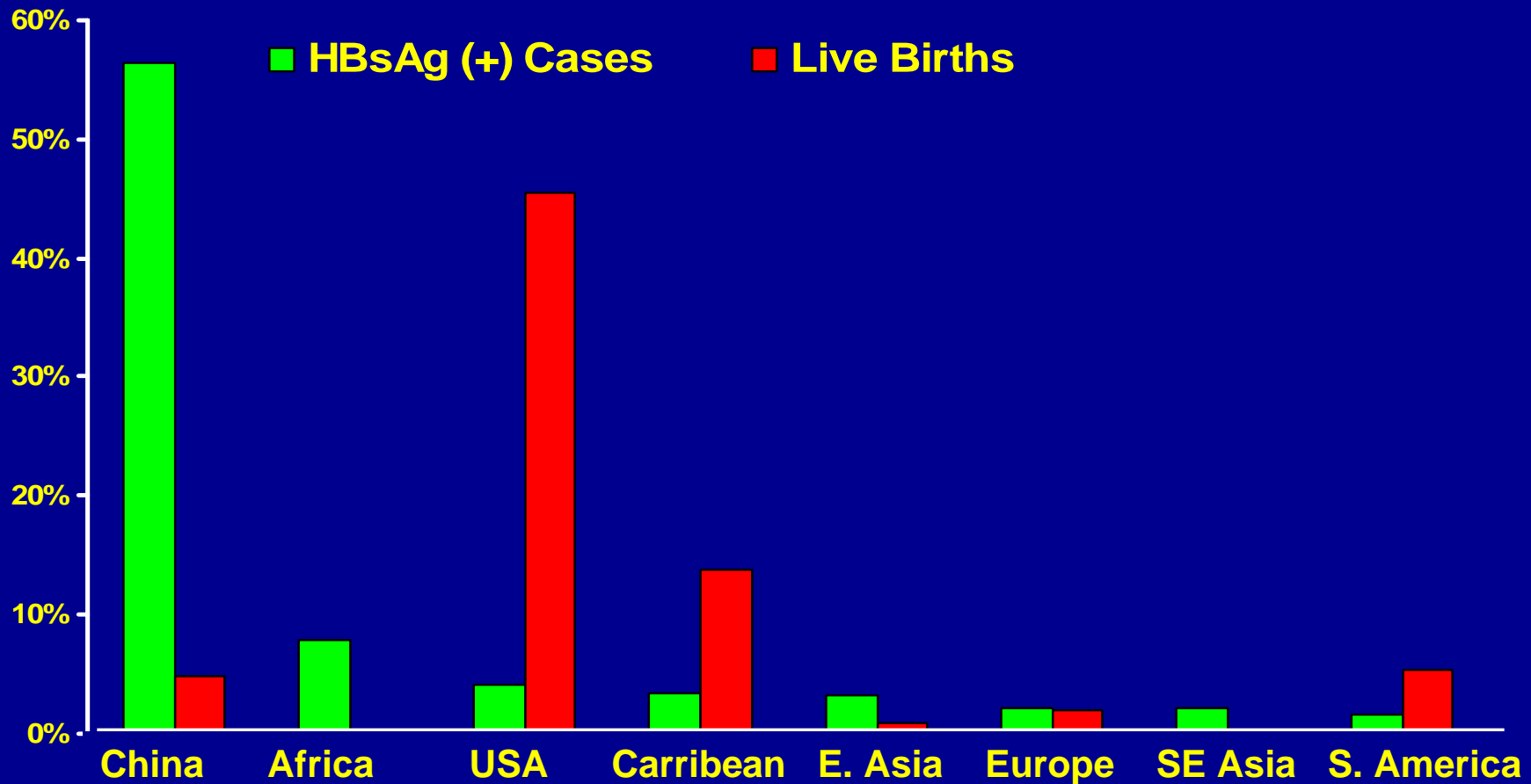
‡ NYC Births in 2004 (n=124,099), NYC Vital Statistics, 2004

# Maternal Country of Birth HBsAg (+) Cases<sup>^</sup>



<sup>^</sup>HBsAg (+) pregnancies reported in 2004, (n=1918), NYCDOHMH

# Maternal Country of Birth HBsAg (+) Cases <sup>^</sup> vs. Live Births<sup>†</sup>



<sup>^</sup> HBsAg (+) pregnancies reported in 2004, (n=1918), NYCDOHMH

<sup>†</sup> NYC births in 2004 (n=124,099), NYC Vital Statistics, 2004

# Case Finding

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- Screening of pregnant women and reporting of HBsAg (+) results has been NY state law since 1990
- Multiple reporting sources
  - Prenatal care providers (66%)
  - Newborn nurseries (17%)
  - Laboratories (12%)
  - Other jurisdictions (<1%)
  - Newborn screening cards (5%)
    - Mother's HBsAg status is transcribed on card
    - 95% of cases already identified by the time the NYSDOH biweekly line-lists are received.

# Completeness of Case Finding Newborn Screening Card Data

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- Every infant has a newborn metabolic screening card
- 97% of the newborn screening cards have a HBsAg test result
- A medical record audit of the 3% “Unknowns” showed that 99% were HBsAg (-)
- Therefore, we conclude that >97% of the HBsAg (+) deliveries in NYC are identified by our office each year.

# Case Management

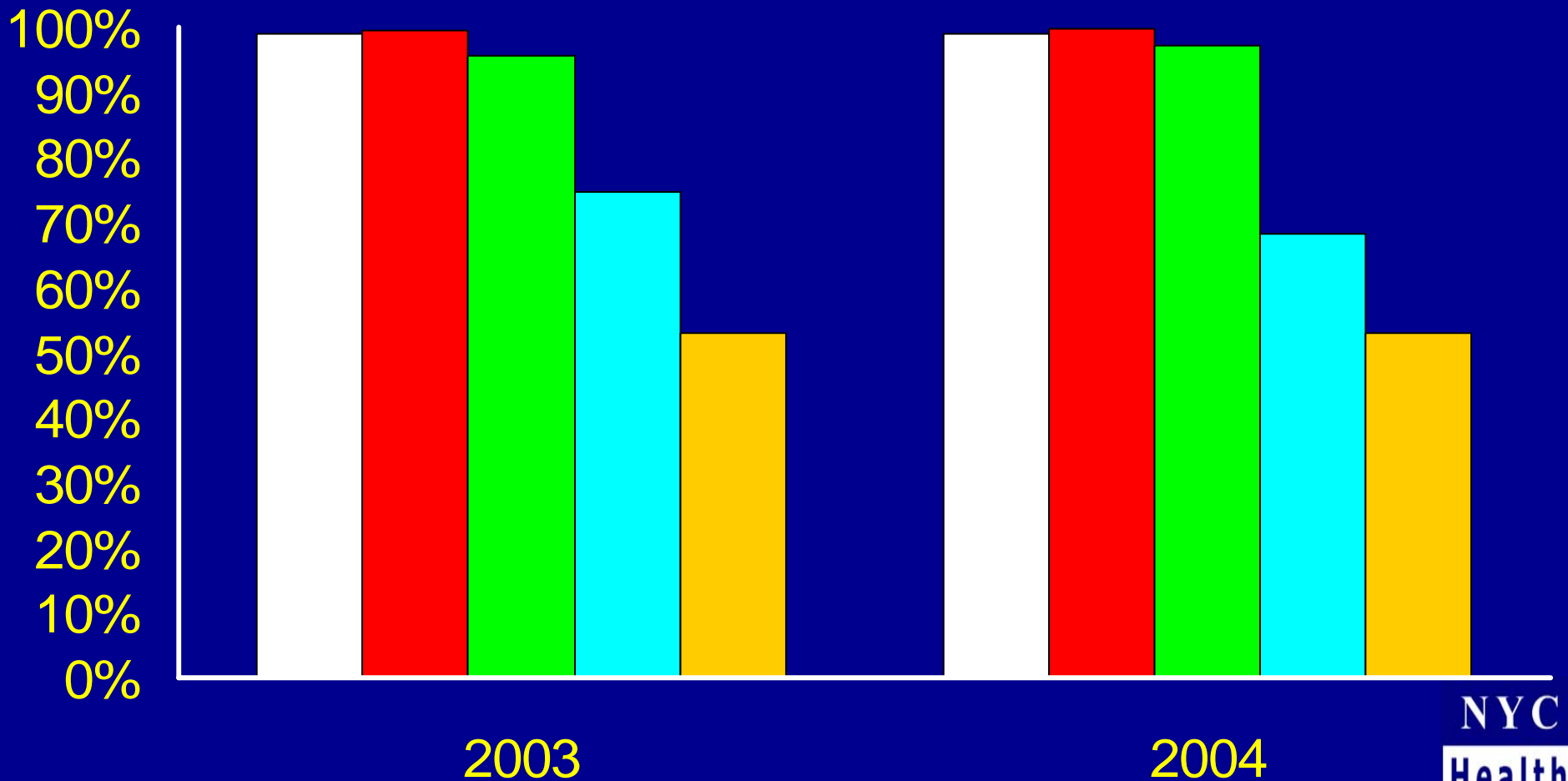
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- Conducted by 16 Public Health Advisors
  - Bilingual in Chinese, Spanish and French/Creole
- Hepatitis B education and data collection conducted by telephone, home visit or a chart review
- Follow up completed for:
  - HBIG, the birth dose and completion of series with final dose at 6 months
  - Post-vaccination serology (PVS) testing at 9 months
  - 2<sup>nd</sup> series and repeat testing if non-immune after 1<sup>st</sup> series

# Vaccination and PVS Testing Completion (%)

## Births in 2003 and 2004

■ HBIG ■ 1st Dose ■ 2nd Dose ■ 3rd Dose ■ PVS Testing



NYC

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# Barriers in Case Management

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- Large caseload
- Language barriers
- Patient compliance
- Provider cooperation
- Losing cases to follow-up
  - Case can not be located – lost contact with mother
  - Infants move out of New York City – may still be in contact with mother

# Cases Potentially Lost to Follow-up 2005 Births

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Of the 1713 infants born in 2005:

- 3% (58) of cases could not be located
- 32% (555) moved before follow up was completed
- Of the 555 infants who moved:
  - 83% (463) moved to China
  - 6% (34) moved to another foreign country
  - 10% (58) moved to another US jurisdiction

# Follow-Up of Infants who Move to China

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- Almost half of the Chinese mothers in our program send their children back to family in China due to time and financial constraints
- In 2005, a new emphasis was placed on active follow up for infants who moved outside of New York City. Infants who moved to China were targeted in particular.
- Benefits of the follow-up:
  - Completing mission to immunize every infant
  - Preventing infections in a high risk environment
  - Immunizing children who will return to NYC or the US at school age or later

# Follow Up Steps for Infants who moved to China (Births Jan. 1, 2005 – present)

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- Provide mother with the letter and reporting form for the pediatrician in China
- Remind mother that if child returns at school age, documentation is required for school entry
- Request her cooperation to obtain documentation from China
- Place follow up phone calls at 1 yr and up to 2 yrs

# Reporting Form Sent to Pediatricians in China



## THE CITY OF NEW YORK DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Michael R. Bloomberg  
Mayor

Thomas R. Frieden, M.D., M.P.H.  
Commissioner

[nyc.gov/health](http://nyc.gov/health)

免疫接種科疫苗組B(乙)型肝炎部門

125 Worth Street, Box 21  
New York, NY 10013

日期：\_\_\_\_\_

尊敬的\_\_\_\_\_醫生：

這封信是關於您的病人的B(乙)型肝炎接種疫苗時間表：

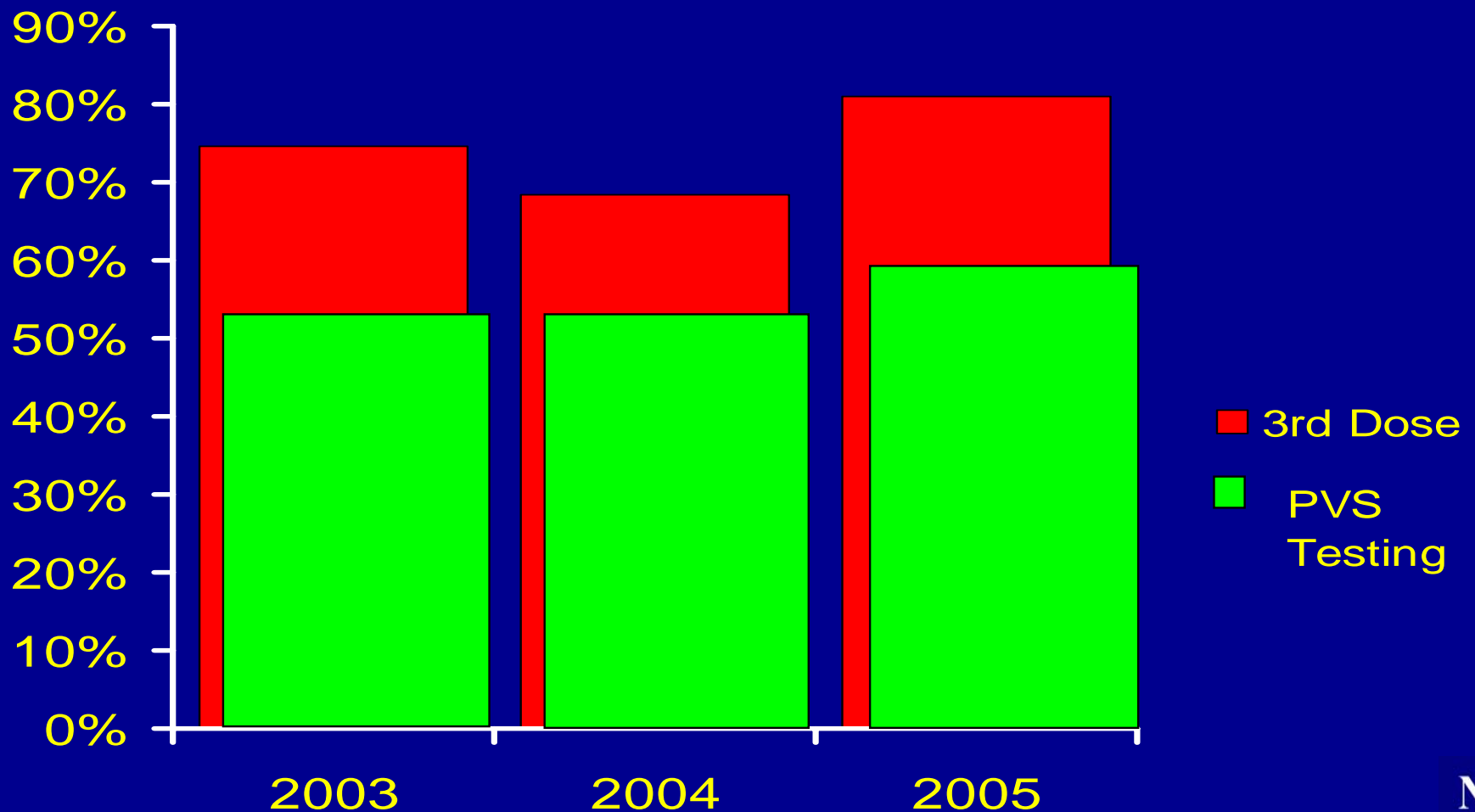
\_\_\_\_\_  
(姓) (名字) (出生日期)

這個嬰兒的妈妈是B(乙)型肝炎帶菌者。因此，這個嬰兒感染到B(乙)型肝炎病毒的機會很高。這個嬰兒必須接種三劑B(乙)型肝炎疫苗：第一劑在出生時，第二劑在一個月大，第三劑在六個月大。然后在九個月到十五個月大時，重溫行疫苗后測試給血清學。(測試B(乙)型肝炎表面抗原HBsAg及其體HBsAb)。

我們有這個嬰兒以下的B(乙)型肝炎治療以及免疫的記錄：

_____ B 型肝炎免疫球蛋白(HBIG)	日期：____/____/____
_____ B 型肝炎第一劑	日期：____/____/____
_____ B 型肝炎第二劑	日期：____/____/____
_____ B 型肝炎第三劑	日期：____/____/____

# Vaccination and PVS Testing Completion (%)



# 3<sup>rd</sup> Dose and PVS Testing Completion (%)

## Infants born in 2005

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### Of the 1713 infants born in 2005

- 81% (1389) had documentation of a 3<sup>rd</sup> dose, a 13% increase since 2004
  - Of these 1389 3<sup>rd</sup> doses
    - 17% (232) were administered in China
    - 81% (1130) were administered in NYC
    - 2% (27) were administered in another U.S. jurisdiction or other country
- 59% (1021) had PVS testing, a 6% increase since 2004
  - Of these 1021 infants, 10% (98) were tested in China

# Lessons Learned

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- Identify program barriers
  - Losing cases to follow-up was identified as the most important barrier
- Understand the case population
  - One third of the infants move to China before case completion, but their mothers stay in United States
- Implement an appropriate response
  - Maintaining contact with the mothers still living in New York City to obtain documentation of vaccinations and testing in China



# Contact Information

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